



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,297	04/14/2004	Robert L. Franch	YOR920030605US1	6059
33233	7590	10/05/2005	EXAMINER	
LAW OFFICE OF CHARLES W. PETERSON, JR. 11703 BOWMAN GREEN DRIVE SUITE 100 RESTON, VA 20190			VERBITSKY, GAIL KAPLAN	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/824,297	FRANCH ET AL.	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-31 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to integrated circuit, classified in class 702, subclass 130.
 - II. Claims 12-19, drawn to temperature measurement circuit, classified in class 374, subclass 170.
 - III. Claims 20-28, drawn to method of modeling a field effect transistor, classified in class 703.
 - IV. Claims 29-31, drawn to method of operating integrated circuit, classified in class 307.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. Invention II is directed to measuring junction temperature and having a CMOS inverter, and a ring oscillator, while Invention I requires a digital converter and a plurality of FETs, not required by Invention II.
3. Inventions IV and II are related as apparatus and method of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the method for using the apparatus as claimed can be practiced with another materially

Art Unit: 2859

different apparatus or (2) the apparatus as claimed can be used in a materially different method of using that apparatus (MPEP § 806.05(h)). In the instant case, Invention IV is directed to method of operating of IC by determining its threshold, while Invention II does not require determining the IC threshold. Invention II requires a ring oscillator not required by Invention IV.

4. Inventions IV and I are related as apparatus and method of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the method for using the apparatus as claimed can be practiced with another materially different apparatus or (2) the apparatus as claimed can be used in a materially different method of using that apparatus (MPEP § 806.05(h)). In the instant case, Invention IV is directed to operating of IC by determining its threshold, while Invention I does not require to determine the IC threshold. Invention I requires plurality of FETs and a converter not required by Invention IV. Therefore, Invention IV can operate with any PN junction, not necessarily the PN junction of Invention I.

5. Inventions IV and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, Invention III is directed to method of modeling of FET, while Invention IV does not require any FET and can be used with any PN junction, not necessarily with modeled FET.

6. Inventions III and I are related as apparatus and method of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the

Art Unit: 2859

method for using the product as claimed can be practiced with another materially different apparatus or (2) the apparatus as claimed can be used in a materially different method of using that apparatus (MPEP § 806.05(h)). In the instant case, Invention III is directed to method of modeling of a FET. Invention I does not necessarily require a modeled FET of Invention III, and can be used with any FET, not necessarily the FET of the Invention III. Invention I requires a comparator and a converter not required by Invention III.

7. Inventions III and II are related as apparatus and method of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the method for using the apparatus as claimed can be practiced with another materially different apparatus or (2) the apparatus as claimed can be used in a materially different method of using that apparatus (MPEP § 806.05(h)). In the instant case, Invention III is directed to method of modeling of a FET. Invention II does not necessarily require a modeled FET of Invention III. Invention II requires a clamping FET not required by Invention III. Invention II does not require a modeled FET required by Invention III, and Invention II is directed to measuring temperature of a PN junction, while Invention III is directed to a method of modeling of a FET.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Art Unit: 2859

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800



September 30, 2005